



Low Noise Amplifier

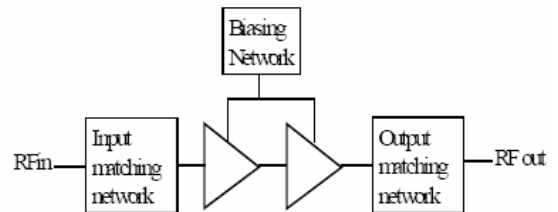
RGLNA03

Description

The **RGLNA03** is 2.0 to 12.0 GHz high efficiency GaAs Enhancement mode p-HEMT Low noise amplifier .The device is designed for 802.11a/b/g standard.

The minimum noise figure achieved is 1.5 dB at 2 GHz. A single 3.5V and 12 mA current bias the LNA. No input and output matching components are required.

Functional Diagram



Applications

- IEEE 802.11 a/b/g WLAN
- MMDS Band
- Cellular System
- WiFi Systems
- UWB

Key Features

- Broadband Amplifier
- High Performance
- Low Current, Low Cost

Electrical Specification

Conditions: $V_{cc} = 3.5\text{ V}$ & $T_A = 25\text{ }^\circ\text{C}$

Parameter	Min	Typical	Max	Units
Frequency Range	2		12	GHz
Gain	9	15	24	dB
Noise Figure	1.5		3	dB
OIP3		21		dBm
Power Output (P1dB)		11		dBm
Input Return Loss		5		dB
Output Return Loss		8		dB
Supply Current		12		mA
DC Voltage		3.5		V

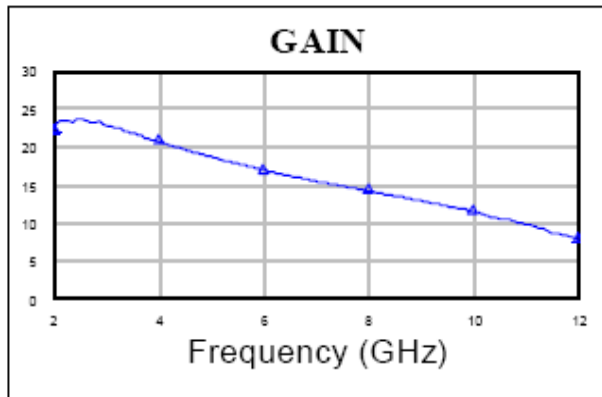


Low Noise Amplifier

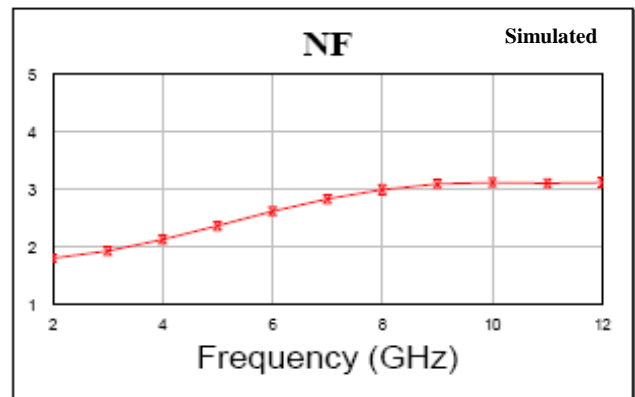
RGLNA03

Measured results

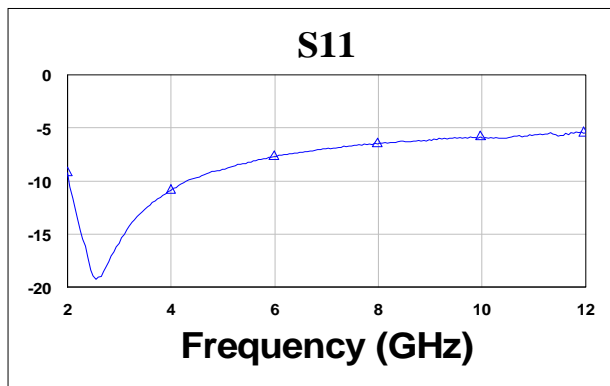
Gain Vs Freq



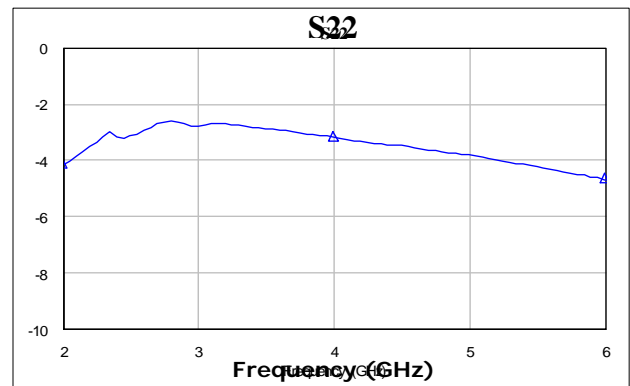
Noise Figure Vs Freq (Simulated)



Input Return Loss Vs Freq



Output Return Loss Vs Freq



Layout

